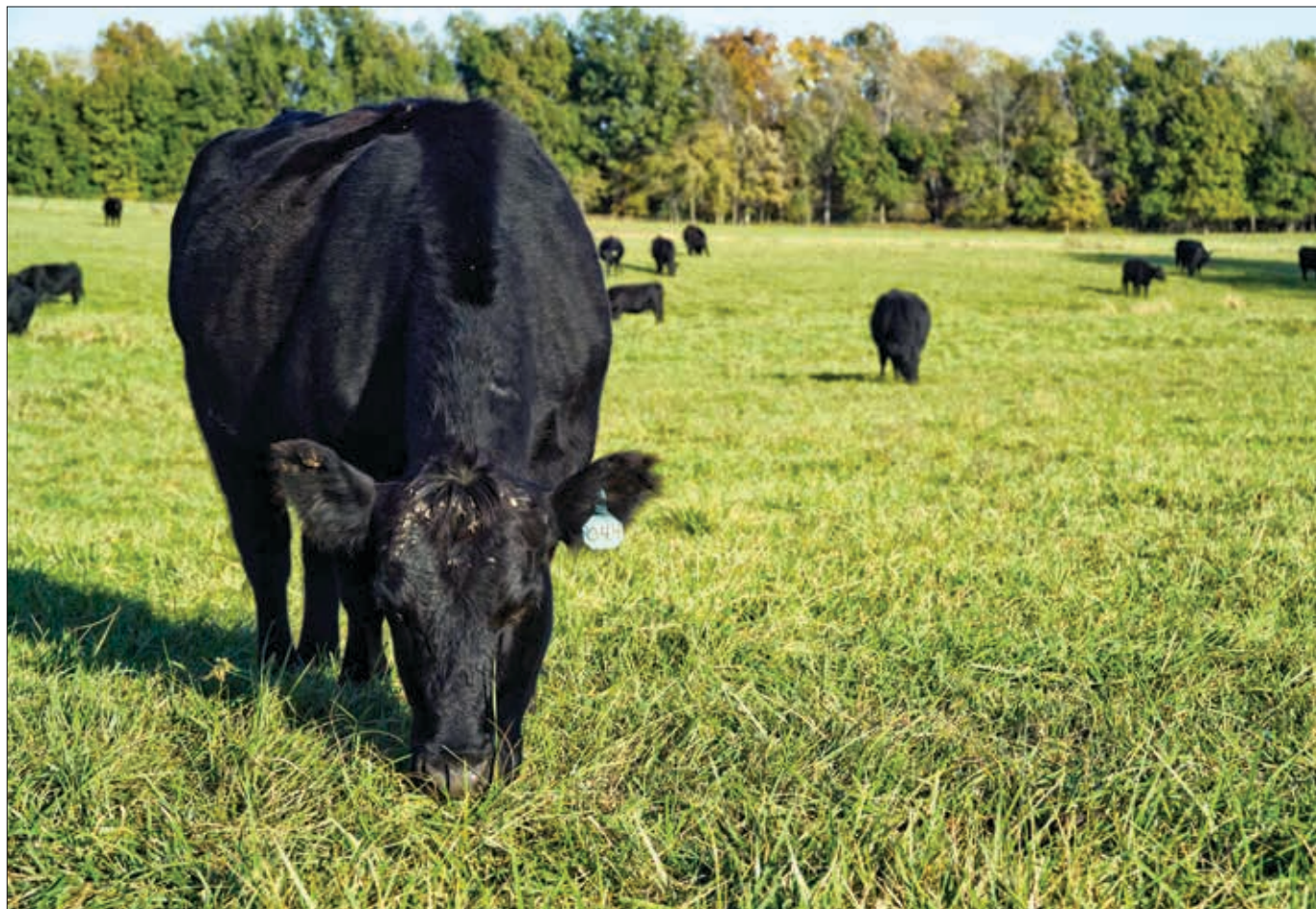


# Grazing Management



PHOTOS BY SHAUNA ROSE HERMEL

## Jim Gerrish offers strategies for improving cow-calf profitability.

by **Troy Smith**, field editor

Jim Gerrish sees nothing wrong in keeping cows as a lifestyle choice rather than as a business. If producers are not doing it just for fun, however, Gerrish says cow-calf enterprises should not have to be buoyed by income from other sources to remain afloat. If honest analysis shows an enterprise is not profitable, and Gerrish says many “conventionally managed operations” are not, then a producer must choose to change.

Gerrish has definite ideas regarding

what it takes to make a forage-based cow-calf enterprise profitable. His opinions stem from 22 years as a researcher at the University of Missouri (MU) Forage Systems Research Center (FSRC), near Linneus, Mo. Gerrish’s studies focused on the interactions of soil, plants and grazing animals, which are fundamental to the principles of management-intensive grazing (MiG). He was co-founder of the Missouri grazing workshops that became the model for grazing schools hosted in numerous states. Gerrish also practiced what he preached, grazing cattle and sheep on his own commercial operation in northern Missouri.

In 2003, Gerrish moved to May, Idaho, and established American GrazingLands Services. He provides on-site consultation to ranchers and grass farmers seeking to improve their management of grazing lands for sustained environmental health and profitability, and continues to participate in grazing seminars

hosted across the United States and Canada. Gerrish also custom manages seasonal grazing of cattle on pivot-irrigated land for central Idaho’s Circle Pi Ranch.

### **Increase profitability**

When consulting with clients or addressing a workshop audience, Gerrish emphasizes that managing production costs never goes out of style. That’s where producers should start when seeking ways to improve profitability. Another way is to increase income by increasing the number of units produced for sale, by selling them at a higher price per unit or by adding enterprises to the operation. However, Gerrish insists that producers should first look for ways to reduce costs.

“Ideally, a producer keeps trying to do both — increase income and reduce costs,” says Gerrish, warning that increasing production won’t necessarily increase income





# Improves Profitability

unless production costs are under control. “For most producers there is opportunity to cut costs — and I’m not about just shaving a bit of cost here and there. I’m about amputation.”

The targets are easy to see. Among Gerrish’s clients, the three greatest costs typically have been winter feed, cow depreciation and labor. Historically, feed is the really big one and includes all costs associated with growing, harvesting and feeding hay. Citing a survey of cow-calf producers in Minnesota, Missouri and Mississippi, Gerrish says the results suggest that producers in each of those three states feed hay about 130 days each year, on average. Some producers feed hay for as many as 260 days out of the year. At the low end of the scale, some Minnesota producers fed hay to cows for only 30 days.

“So why do some producers feed so much hay? I submit that they feed hay to the extent that they can make it. It’s what they do. It’s tradition,” says Gerrish.

## The hay equation

Referring to costs of equipment, fuel, labor and fertilizer, Gerrish notes that during the last 40 years, these hay-making and feeding costs have increased at four to five times the rate that cattle value has. He notes how, in 1973, his father bought a top-of-the-line hay baler for \$4,200. Today, a new baler’s price is nearer \$40,000. That’s a 950% increase, while calf prices have increased by 275%.

“It made sense to bale up and feed hay in 1973, based on input costs,” admits Gerrish.



► Jim Gerrish says a ton of hay with 60% digestibility returns nearly 800 pounds of organic matter to the land where it is fed.

“We’re in a different economic climate now. Very often, what worked so well in our parents’ and grandparents’ operations no longer works.”

Consequently, Gerrish urges producers to consider ways to reduce or even eliminate their dependence on hay.

For example, they might want to consider managing fewer cows and more yearlings in the summer, so that winter feed demand is reduced. They may want to seek opportunities to graze owned or rented crop-residue fields for winter grazing. If producers

feel they must feed hay, Gerrish advises them to consider alternatives to owning haying equipment. It may be possible to reduce costs by leasing equipment or hiring a custom harvester.

Producers may be able to reduce feed costs by purchasing hay. In environments where forage is grown without irrigation, buying hay is often the less-expensive option. Gerrish says many producers find that hard to believe, but they usually are the same people who do not calculate their own true costs of

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production. They may discount their own labor and often fail to account for equipment depreciation. In Gerrish's experience, producers with relatively small operations, but a full line of haying equipment, often have true hay production costs that exceed \$200 per ton.

Gerrish calls it more important to quit making hay than to quit feeding it. Buying and feeding hay can provide a benefit that many producers do not consider. They tend to forget that 90% of what goes in the front end of a cow comes out the back end and is added to the soil.

"When you buy someone else's hay, you're also buying their fertility. In some parts of the U.S., hay sells for less than the soil nutrient value it contains. So as long as you feed it in a manner that allows good nutrient distribution, purchased hay can become an effective fertilization strategy," explains Gerrish.

Besides the nitrogen and other minerals contained in hay — perhaps \$80-\$85 worth in a ton of typical grass-clover hay — a significant quantity of organic matter is imported with purchased hay. Gerrish says a ton of hay with 60% digestibility returns nearly 800 pounds (lb.) of organic matter to the land where it is fed.

Gerrish's preference is to eliminate hay production altogether, purchase the minimum amount of hay necessary and let cattle harvest their own winter feed by grazing. Every day a cow can graze rather than eat harvested feed represents money saved. Gerrish says there often is a dollar-a-day difference between the cost of grazing a cow and the cost of feeding her hay. Plus,

using land for pasture that otherwise would be in hay production may actually result in more efficient production plus cost savings that lead to improved profitability.

### Managing grazing

Improved grazing practices also contribute to profitability, but Gerrish says grazing management is really about the management of solar energy, water and soil nutrients. He contends that much of the pasture and rangeland in the United States is yielding only one-third to one-half of its forage production potential. He advocates management-intensive grazing as a means of manipulating grazing animals, plants and soils to enhance the capture of solar energy and rejuvenate water and mineral cycles.

This, says Gerrish, can largely be accomplished by controlling the amount of time that grazing animals have access to any one grazing area. Utilizing a system of paddocks, customized to each ranch or grass farm, animals

are moved from paddock to paddock in a planned rotation. The objective is to allow for a short grazing period in each paddock, followed by a long period of rest. In Gerrish's opinion, the greatest failing of range and pasture management over the last century has been allowing livestock to remain too long in the same grazing area.

"Almost every negative aspect of failed pasture and range comes from the failure to manage time," Gerrish adds, emphasizing the importance of allowing sufficient time for grazing land to rest and recover. "Leaving plenty of postgrazing residue and moving

livestock off pastures quickly will help develop the solar panel, a more effective water cycle and accelerated mineral cycling."

The long-term result is healthier soils and healthier, more resilient and diverse plant communities. Managed wisely, grazing lands then yield more total pounds of forage per acre. Gerrish says that translates to more animal grazing days, meaning the grazing season might be extended for an existing herd, or more animals could be grazed during a shorter defined season. Healthy grazing lands also support improved animal performance, so the combined result is production of more total pounds of beef per acre.

"More pounds per acre are produced at a lower cost per pound if the increase comes from management instead of expensive inputs," states Gerrish.

Application of fertilizer is a widely used practice for improving pastures, but Gerrish finds it harder and harder to advocate conventional fertilization programs. The cost of commercial fertilizer is just too high. He advises producers to look hard at alternatives, such as the aforementioned importation of nutrients through purchased hay. Then feed the hay where it will do the most good, resulting in incorporation of manure and any "wasted" hay into the soil.

Pasture reseeding can be justified in some situations, but probably only once in a producer's lifetime. If a reseeded pasture doesn't last, Gerrish believes its management should be scrutinized. To improve pasture and range, he favors applying a higher level of grazing management, which may require investment in permanent or temporary fence, and stock water-site development to allow for more frequent rotation of grazing animals.

"Frequent rotation is really all about building better soil and pasture," Gerrish emphasizes.

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**— Jim Gerrish**



▶ According to Gerrish, for every 100 lb. of additional body weight, a cow must consume 500 lb. of additional forage per year to meet her maintenance requirement. The cost can be dear in more ways than one.

## Manage cow size

If cow-calf producers are striving for improved profitability by better managing grazing lands to produce more pounds of beef per acre, Gerrish believes they must also consider the type of cattle they have. Biological type is more important than breed. Adaptability to the production environment is a must and, in Gerrish's opinion, size does matter. He says the notion that as much or more beef can be produced with fewer larger cows cannot be supported by the bottom lines of grass farming and ranching operations.

"Do bigger cows really produce bigger calves at weaning? Sometimes, yes. However, evidence shows that when mature cow size is increased by 500 pounds, we can increase calf (adjusted 205-day) weaning weight by 102 pounds. This is not very efficient," states Gerrish. "As cow size gets bigger, it becomes increasingly difficult for her to wean 50% of her own body weight."

Gerrish says MU animal scientist Ron Morrow concluded in the mid-1990s, on the basis of 15 years of data collected at the FSRC, that inefficiency becomes increasingly apparent among cows with mature weights in excess of 1,200 lb. Gerrish also cites more recent modeling work by South Dakota

State University's Eric Mousel showing that the efficiency of feed fed to production was greater with smaller cows.

"The South Dakota work not only looked at the weaning-weight ratios, but looked at the net return to a fixed land resource for cows of various sizes," adds Gerrish. "The most profitable cows were those in the 1,000- to 1,100-pound range, and those in the 1,400- to 1,500-plus-pound range were least profitable."

Gerrish isn't saying that everyone would be better off managing 1,000-lb. cows, but he believes there is no advantage to cows weighing more than 1,200 lb. Bigger cows have higher maintenance requirements and must eat more than smaller cows. According to Gerrish, for every 100 lb. of additional body weight, a cow must consume 500 lb. of additional forage per year to meet her maintenance requirement. Particularly in a challenging environment with a restricted feed supply, the cost can be dear in more ways than one. Higher maintenance requirements may result in lower reproductive efficiency, as well as higher feed cost per cow.

Gerrish advises producers to consider that while big cows may produce larger calves, are they also likely to produce fewer calves?

Are big cows apt to be culled from the herd sooner? Does higher average calf weaning weight offset higher resource requirements and loss of fertility? Do big cows allow the producer to make efficient use of grazing land?

Gerrish maintains that a good manager can run a greater number of smaller or truly moderate-size cows on any given resource and generate more pounds of beef per acre, compared to fewer large cows. He urges producers to consider the pounds of forage that are required to produce each pound of calf produced. He calls that a pretty important concept to cow-calf producers seeking to improve profitability.

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**Editor's Note:** *Troy Smith is a cattleman and freelance writer from Sargent, Neb.*